1. A method to form a hard mask, comprising:

providing a substrate and forming thereon a photoresist mold;

electro-depositing material on all conductive surfaces not covered by said mold; and

then selectively removing said mold, thereby forming said hard mask.

2. The method described in claim 1 wherein said electro-deposited material is CoNiFe.

3. The method described in claim 1 wherein said electro-deposited material is deposited to a thickness between about 1 and 4 microns.

4. The method described in claim 1 further comprising depositing a conductive seed layer on said substrate prior to forming said photoresist mold.

5. A method to trim, to a desired thickness, a narrow pedestal, comprising:

surrounding, without touching, said pedestal with an etch stop layer having a top surface that is coplanar with that of said pedestal;

overfilling space between said etch stop layer and said pedestal with a layer of insulation;

performing CMP, using a first slurry under a first set of conditions, until said etch stop layer is just exposed; and

then performing CMP, using a second slurry under a second set of conditions, until

said pedestal has been trimmed to said desired thickness.

6. The method described in claim 5 wherein said first set of conditions for performing CMP include use of an alumina slurry.

7. The method described in claim 5 wherein said second set of conditions for performing CMP include use of an alumina slurry.

8. The method described in claim 5 wherein said pedestal has a height between about 0.3 and 0.5 microns.

9. The method described in claim 5 wherein said pedestal has a width between about 0.1 and 0.3 microns.

10. The method described in claim 5 wherein said etch stop layer is selected from the group consisting of Ru and Ta.

11. The method described in claim 5 wherein said insulation layer is selected from the group consisting of Al_2O_3 and SiO_2.

12. A process to form a magnetic write head, including a stitched write shield and a

main pole, comprising:

forming a first magnetic disk on a substrate and abutting said first disk with a first layer of insulation with which it shares a first common top surface;

depositing a non-magnetic write gap layer on said first common top surface;

forming on said write gap layer a second magnetic disk and abutting said second disk with an end point detection layer with which it shares a second common top surface;

forming on said second common top surface a hard mask that defines, within said magnetic disks, the stitched write shield and main pole;

then removing all material not covered by the hard mask down as far as said substrate, thereby forming a cavity;

overfilling said cavity with a second layer of insulation and then performing a first CMP step until said layer of etch stop material is just exposed, thereby also just exposing said second magnetic layer and thus forming therefrom said stitched write shield; and

then performing a second CMP step until said stitched write shield has been given a desired thickness.

13. The process recited in claim 12 wherein said first magnetic disk is selected from the group consisting of CoFeN, CoFe, and CoNiFe.

14. The process recited in claim 12 wherein said second magnetic disk is selected from the group consisting of CoFeN, CoFe, and CoNiFe.

15. The process recited in claim 12 wherein said first layer of insulation is selected from the group consisting of Al_2O_3 and SiO_2.

16. The process recited in claim 12 wherein said second layer of insulation is selected from the group consisting of Al_2O_3 and SiO_2.

17. The process recited in claim 12 wherein the step of forming a hard mask further comprises:

forming a photoresist mold on said second common top surface;

electro-depositing material on all conductive surfaces not covered by said mold; and

then selectively removing said mold.

18. The process recited in claim 12 wherein the first CMP step further comprises:

using a slurry of 2-5 weight % alumina, with 93-96 weight % deionized water, at a pH of about 7.5 to 8.5;

applying a back pressure between about -6 and 6 p.s.i;

having a wafer rotation speed between about 50 and 70 r.p.m;

exerting a wafer polish pressure between about 4 and 6 p.s.i; and

including less than about 2% additives by weight.

19. The process recited in claim 12 wherein the second CMP step further comprises:

using a slurry of 2-7.8 weight % alumina, with 90-95 weight % deionized water, at a pH of about 4 to 4.8;

applying a back pressure between about -6 and 6 p.s.i;

having a wafer rotation speed between about 50 and 70 r.p.m;

exerting a wafer polish pressure between about 4 and 6 p.s.i; and

including less than about 3% additives by weight.

20. The process recited in claim 12 wherein said desired stitched write shield thickness is between about 0.3 and 0.5 microns.

21. The process recited in claim 12 wherein said non-magnetic gap layer is selected from the group consisting of Al_2O_3 and Ru.

22. The process recited in claim 12 wherein said non-magnetic gap layer is deposited to a thickness between about 500 and 1,000 Angstroms.

23. A micro-structure optimized for controlled CMP, comprising:

a micro-device on a substrate; and

a CMP monitoring site located within a distance from said microdevice.

24. The micro-structure described in claim 23 wherein said micro-device is a stitched

write shield on a gap layer on a main pole; and

said micro-structure is a magnetic read head.

25. The micro-structure described in claim 23 wherein said CMP monitoring site can be viewed in an optical microscope.

26. The micro-structure described in claim 23 wherein said CMP monitoring site further comprises a layer of CMP end point detection material.

27. The write head described in claim 26 wherein said layer of end point detection material is selected from the group consisting of Ru and Ta.

28. The write head described in claim 23 wherein said distance that said monitoring site is located from said micro-device is between about 50 and 80 microns.